should be used for each determination of specific gravity, as there are some differences between the bulbs themselves. The specimen of urine should be approximately at the same temperature at each reading, or specimens with and without yeast may be kept side by side for controls and compared as regards their specific gravity. Christian says that observing these few precautions, results as accurate as with the other methods may be obtained, while its simplicity and cheapness should recommend it to more general use.

The Presence of Typhoid Bacilli in the Lice of Patients Suffering from Typhoid Fever.—ABE (from the clinic of Professor Matsushiti in Kioto, *Münch. med. Woch.*, 1907, liv, 1924) calls attention to the influence of parasitic insects in the spread of various infectious diseases. It is a well-known fact that the mosquito is a direct transmitter of malaria; flies often infect food with the bacilli of cholera and dysentery. Typhoid bacilli, as is well known, are present in the circulating blood in the majority of instances of typhoid fever. It is, therefore, easily conceivable that the various human parasites—lice, fleas, and mosquitoes—when they bite human beings affected with typhoid fever, contain the parasites. Pflügge and others have long been under the impression that such parasites might, under circumstances, transfer the infection. Tsujitani and Herzog have each cultivated the bacilli of plague with fleas which have bitten mice.

Abe collected lice and fleas from individuals infected with typhoid fever, soaked them for several minutes in a sterilized test tube in 0.1 per cent. corrosive sublimate solution and then, after having thoroughly washed them with sterile water, ground them up in a sterile mortar. This powder was inoculated under the skin of a white mouse and onto the culture media of Drigalski, Conradi, and Endo. The test tube which was used for the collection of the parasites was filled with 10 cm. of bouillon and placed for twenty-four hours in a thermostat at 37°. With this bouillon smear cultures were also made upon the abovementioned typhoid media. The bacteria which grew from the typhoid-like colonies and in the internal organs of the animals in whom the injections were made were carefully tested by all modern methods. The results showed that the lice from the body and clothes of typhoid patients contained typhoid bacilli in three out of four cases; while fleas obtained from the nurses of typhoid patients in two instances failed to show bacilli. This latter result may depend upon the fact that but few fleas were obtained. The author concludes that the skin parasites of human beings "play, probably, an important role in the spread of the contagious diseases, especially in typhoid fever." [But the discovery that fleas and lice which have bitten typhoid fever patients contain typhoid bacilli is by no means proof that they are capable of conveying the disease by subsequent feeding upon a healthy individual.—W. S. T.]

Observations on Metabolism in Exophthalmic Goitre.—SCORDO and FRANCHINI (*Il Policlinico*, 1907, xiv, 285) report some studies made in Grocco's clinic on the metabolism in exophthalmic goitre. Their observations lead them to the conclusion which has been reached by many others, that emaciation with a relative loss of fat and albumin is by no means the absolute rule in this disease, nor is it dependent upon the course of the clinical symptoms, as one may observe an increase of weight without manifest change in the general appearances. During the period of observation the two patients studied gained slightly in weight. They ascribe a nitrogen retention, observed in these cases, to the fact that the patients were steadily improving, were at rest, and, in one case at least, were taking abundant nourishment.

There was a slight diminution in the oxidative processes as revealed by the diminution in the amount of nitrogen in urea as compared to the total nitrogen. There was an increase in amido acids dependent apparently on altered conditions of the hepatic circulation in both patients. There was a slight increase in uric acid and in the nitrogen precipitated by the phosphotungstic chloride mixture. There was an increase in the earthy phosphates and a marked increase in the elimination by the feces of P_2O_5, accounted for probably by the influence of the altered thyroid function as well as by the marked increase in the excretion of lime in the feces. There was an increased calcium elimination as well in the urine as in the feces and also an increased elimination of MgO by both urine and feces. They observe that, while they have been able to compare their data with those of other authors with regard to nitrogen, sulphur, and phosphorus, they have not been able to do the same in the case of the lime and calcium and magnesium. And from two cases alone they cannot draw positive conclusions. Repeated experiments through long periods of observation will be necessary to settle the significance of these observations with regard to the calcium and magnesium excretion.

In conclusion they say: "From all that which we have said the relation between the thyroid function and the alterations in the metabolism in Basedow's disease is clear; and the sharp difference between these alterations and those of myxœdema support strongly the thyroid theory of Basedow's disease." The authors also refer to the experiments of Kocher suggested by Scholz with relation to the treatment of this disease by phosphate of sodium, and suggest that in view of their observations it might be well to combine the administration of lime with that of phosphorus.

Auscultatory Ratios in Pulmonary Tuberculosis.—J. S. Billings (*New York Med. Jour.*, 1907, lxxxvi, 10). In the examination of cases of incipient tuberculosis methods of distinguishing between beginning infiltrations of the apex of the right lung and simple physiological intensifications of the breath and voice sounds have been constantly sought for. In cases in which the abnormal signs at the apex seem to be due to a physiological intensification there is a corresponding increase over the lower part of the right upper lobe, both in front and back. In normal chests the same phenomenon at the apex and the lower part of the lobe is noted and a definite ratio of intensification is obtained. The sounds at the apex are of course louder than at the lower part of the lobe, this ratio in health being about 4 to 3 or 5 to 3. In order to record these differences the author used a modification of Oertel's stethoscope (which is illustrated) and examined the patient in a standing posture, listening at the apex of the lung in front and behind and also over the second space and the third rib, one and one-half inches from the sternum in front and just above the upper angle of the scapula behind. Much depends on the man-